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The Sea/Land Battle Carrier Battle Group
Tactical Support in Contingency Operations

A Monograph
by

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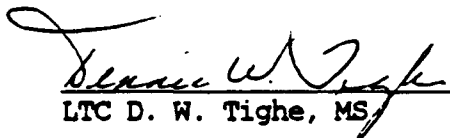
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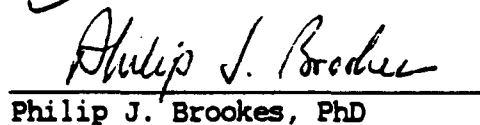
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ABSTRACT

THE SEA/LAND BATTLE: CARRIER BATTLE GROUP TACTICAL SUPPORT IN CONTINGENCY OPERATIONS by LCDR Jonathan T. James, USN, 60 pages.

This monograph examines the role of carrier battle groups in contingency operations. The traditional role of the carrier battle group is to defeat enemy fleets and gain control of the seas. Today's carrier battle groups were designed and built for this traditional role. However, the current world situation makes such battles at sea unlikely; contingency operations in various parts of the world may require the power of the carrier battle group be used to support troops ashore. This research attempts to determine if this is a proper role for the carrier battle group. The answer to this question will have implications for the design and doctrine of the future Navy.

The monograph identifies the theoretical foundations of current U.S. Navy doctrine. It also discusses how this naval theory can be used to determine the role of the carrier battle group. Two historical examples are studied to examine the utility of carrier battle groups in a tactical support role. Then the capabilities and limitations of modern American carrier battle groups are examined.

Finally, the theory, history and current capabilities are synthesized to develop an answer to the research question. Conclusions and implications for future operations are derived from this analysis.

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SECTION ONE INTRODUCTION

A modern navy possesses universality and mobility and is capable of concentrating strike power which may be used not only for fighting a foe at sea but also in the sphere of operations of other branches of the armed forces.¹

S. G. Gorshkov
Commander in Chief
Soviet Navy

Before World War II, battleships were the capital ships of navies.² Their mission was to seek out the enemy's capital ships for a decisive battle at sea. The Japanese attack on Pearl Harbor crippled the American battleship fleet. As a result, the Americans looked to their aircraft carriers to become the new capital ships and gain command of the seas.³ Together with their surface combatant escorts of cruisers and destroyers, the aircraft carriers formed carrier battle groups which dominated ocean warfare.

World War II was the last time that rival battlefleets fought each other for command of the seas.⁴ Since 1945, the role of the carrier has changed. In Korea, Vietnam, and numerous contingency operations no appreciable naval threats existed for the carriers to counter.⁵ Therefore, the carriers and their escorts were able to provide support to the ground war, a service upon which the ground commanders came to rely.⁶ But is this the correct mission for the Navy in general and the carrier battle group in particular?

The Navy is tasked to organize, train, and equip naval forces for combat at sea.⁷ Naval planners try to match military

objectives (ENDS), the resources available (MEANS), and the missions and functions of the Navy (WAYS). In this case, the carrier battle group is the MEANS. The question before us is the WAYS; how should this carrier battle group be used to achieve military objectives?

The intent of this research is to determine if a carrier battle group should be tasked to provide tactical support to Army units ashore during contingency operations. The Navy is now studying how this type of support can be provided using current assets and doctrine.⁸ But is this really the proper role for the carrier, or is it just another excuse to keep expensive carriers afloat in the face of a declining Soviet threat and dwindling budget dollars? Building a carrier battle group is an expensive proposition, especially in light of today's world situation and American's economic troubles.⁹

The basic design of a carrier battle group is based upon its perceived role in military operations. Until a few months ago the major threat was the Soviet Union. Countering the Soviet fleet at sea requires different assets than does providing tactical support ashore. Though the carrier did provide support to ground forces, it did so with assets designed for a war at sea. If the relative importance of providing tactical support to ground forces during contingency operations increases, then the design of the ships and aircraft of the carrier battle group must be reevaluated with regard to this mission.

The employment of the carrier group is dictated by naval doctrine. As we will discuss later, naval doctrine apparently

places little emphasis on providing tactical support to units ashore. This, too, may have to be reevaluated if the carrier battle group is going to be routinely tasked with this role.

Before we begin to study the research question, we must first define the terms tactical support and contingency operations. According to the Army Field Manual 100-5, Operations, the tactical level of war is the conduct of engagements and battles, while the operational level of war is the design and conduct of campaigns.¹⁰ It follows, therefore, that the operational support a carrier battle group can provide to Army units can be discussed in terms of its effect on the land campaign. Tactical support from a carrier battle group will, on the other hand, directly affect land battles and engagements.

We are looking at contingency operations in this research as they are likely missions for modern military forces. FM 100-5 defines contingency operations as military action requiring rapid deployment of joint forces to perform military tasks in support of national policy.¹¹ A form of crisis response, contingency operations differ from other operations in that they are usually unplanned and conducted on an ad hoc basis.¹² An American observer of the British campaign in the Falklands war wrote:

Of all the Falklands ironies, perhaps the most stringent is that our principle ally fought and won a war against a foe, in a place, at a time, and for a prize that no reasonable man could have predicted. Randomness remains war's cardinal trait and men's valor its principle virtue.¹³

For the purposes of this paper, contingency operations will be assumed to consist of ground units supported by a carrier

battle group at sea. Though the ground units are often Marines, they could also consist of Army units, or a combination of both Army and Marines. Examples in this past decade alone include the support carrier battle groups gave to forces ashore in Lebanon, Grenada, Panama, and currently in Saudi Arabia. Support by Air Force units will not be discussed. If ground-based air power is available, the carrier battle group will probably not be used.

To answer the research question, we will first study two prominent naval theorists whose works helped form the missions and roles of the American naval forces in this century. This study will include their thoughts on the interrelationship of land and sea warfare. We will also attempt to determine if their individual theories can be used to justify using the carrier battle group to provide tactical support ashore. Synthesizing their thoughts, we will see if it makes sense theoretically to use a carrier battle group in tactical support of Army units in contingency operations.

Next, we will examine two recent examples of carrier battle groups supporting ground operations in contingency operations. These are Operation URGENT FURY, the American invasion of Grenada in 1983, and Operation CORPORATE, the British expedition to the Falklands in 1982. For each operation we will briefly examine the effect the carrier battle groups had on the land battles and engagements, and attempt to determine if the carrier battle groups had a significant effect on the outcome. We will also note the differences between the American and British carrier battle groups.

The third step will be to examine an American carrier battle group's ability to influence land battles and engagements. This analysis will include both capabilities and limitations of the carrier battle group. It will also specify in more detail the composition of a typical carrier battle group.

The final step in answering the research question is to analyze the decision to use the carrier battle group in a tactical support role with regard to its FEASIBILITY, ACCEPTABILITY, and SUITABILITY.¹⁴ FEASIBILITY looks at whether or not the decision is doable. This will be determined by showing if the carrier battle group can have an effect on the ground battle. For example, it would make no sense to provide the ground forces with carrier air support if the battle were physically beyond the reach of carrier air.

The second criterion, looking at the decision's ACCEPTABILITY, will be determined by naval doctrine. The Department of the Navy is responsible for organizing, training, and equipping Navy forces for combat. Even if the mission is accomplished, is using the carrier battle group in a tactical support role ACCEPTABLE to the Department of the Navy? If it is, then the carrier battle group will be trained and equipped to properly carry out the mission. Assuming that doctrine is the written expression of how the Navy views its mission and functions, then it can also be used to determine the ACCEPTABILITY of the carrier battle group in a tactical support mission.

The third criterion is the SUITABILITY of using the carrier battle group in a tactical support role. Based upon the physical

capabilities of the carrier battle group, can it provide tactical support to Army units ashore? Inherent in this question is the basic design of the battle group itself; are the ships and aircraft designed to provide tactical support ashore, or are they designed with other missions in mind. In other words, is the tactical support role the correct mission for the carrier battle group, and can the carrier battle group actually carry out this mission.

There is an overlap among the three criteria. For example, if this tactical support role is not ACCEPTABLE to the Navy, then forces will not be trained or equipped for it, rendering the forces UNSUITABLE for a tactical support mission. If the decision is not FEASIBLE, then it is unlikely that the forces will be so organized and trained.

The conclusion to the research question will be reached after synthesizing theory, history, and the decision analysis. This will be followed by possible implications for future operations.

SECTION TWO THEORETICAL ANALYSIS

American naval doctrine is grounded in the naval theories of Alfred Thayer Mahan and Sir Julian Corbett. These theorists were extremely influential through their analyses of naval power and its impact on war. Both theorists were, in turn, influenced by Carl von Clausewitz's and Antoine Henri Jomini's works on military theories. Unfortunately, the works of Mahan and Corbett

are unfamiliar to many modern American officers.¹⁵ Mahan is better known, perhaps because he was an American while Corbett was British, or because Mahan was a naval officer while Corbett was a civilian. However, their concepts of naval warfare, such as sea power and command of the seas, have become so uncritically accepted that we tend to forget from where they came.¹⁶ The terms sea power and command of the seas can be seen in current naval doctrine and maritime strategy.

We are examining these theorists to determine if there is a theoretical basis for using carriers in a tactical support role. Clausewitz said that theory "should educate the mind of the man who is to lead in war."¹⁷ But theory should also be able to do more than this. It can provide a common framework for study, as well as be the basis for doctrine and strategy.¹⁸ Corbett wrote:

Naval strategy is best approached through the theory of war, for theory will show the true function of the Navy in war.¹⁹

Both Mahan and Corbett wrote their theories before the advent of the aircraft carriers. In truth, there have been many technological advances since their day. According to the modern military theorist Michael Handel, technology has revolutionized warfare since Clausewitz. There has been a revolution in firepower, war in the air as a third dimension, and a revolution in communications.²⁰ However, acknowledging that technology has changed the ways and means of modern warfare, it is still useful to study these theorists to attempt to answer the research question. While an aircraft carrier might have astounded Mahan or

Corbett, it is just another type of capital ship, one that replaced the familiar battleship. In this context we can use these theorists to help us determine the current role of the carrier.

Military theorist Antoine Jomini had an appreciation for the interdependence of land and sea warfare. Though his experience was only with land battles, Jomini recognized the strategic importance of the seas.²¹ Unfortunately for this analysis, his specific comments on naval warfare were mostly on amphibious and colonial operations.²² He talked of movements of troops by sea, not naval forces directly influencing the land battle with their weapons. However, his principles of war were used by others to construct their own theories of naval warfare.

Jomini's principles prescribed offensive action to mass forces against a weaker enemy force at a decisive point or points. He defined the decisive point as a location or force whose attack or capture would imperil or seriously weaken the enemy.²³ Military historian John Shy wrote about naval and air derivations of Jominian principles. He believed that Jomini's decisive point for attack was not the armed forces of the enemy; rather, it was his economic and administrative centers. For armies, this would be the enemy rear area, where its supplies and communications were established. For navies, this would mean attacking ports and sea lines of communications with concentrated forces.²⁴ This would fall under our definition of operational support for the land campaign, but not tactical support, as it does not include providing tactical support for land battles and

engagements. These operations could include such operations as mining harbors, blockades, and interdicting shipping.

Mahan used a Jominian approach to study naval warfare. Jomini's concepts such as concentration of forces, the value of position and interior lines, and logistics were all used by Mahan. His major works dealt with the influence of navies and the effect they had on national power.²⁵ He did discuss historical examples of navies directly affecting land battles and campaigns. According to naval scholar Herbert Rosinski, Mahan felt that navies could affect, directly or indirectly, land battles whenever and wherever they were in range of naval gunnery.²⁶

Mahan's historical examples included several instances of this type of naval influence, such as the fall of Quebec to the British, where a small squadron of British ships sailed up the Lawrence River to support the Army; the capitulation of the British at Yorktown, where a French Fleet isolated the British Army from its support; the decisive effects of Nelson's guns on the French advance in the Riviera in 1794; and the impact of Perry and McDonough controlling the Inland Lakes in the War of 1812 in defeating the British forces.²⁷

However, Mahan is better known for his strong belief that the direct influence of sea power on land battle was of secondary importance compared to gaining control of the seas.²⁸ His writings coincided with the building of a large American fleet, and in fact were used to help justify building the big battleships.²⁹ His naval theories were also a vindication of the naval strategy used by the Americans during the Spanish-

American War. The Americans were not going to conduct an invasion of Cuba without first gaining command of the Caribbean and all of the adjoining waters. This meant that the Spanish fleet had to be destroyed or neutralized.³⁰ The destruction of the Spanish fleet at Santiago, as well as the destruction of a second Spanish fleet in far off Manila, enabled the Americans to win.³¹

This vital necessity of acquiring as quickly as possible 'Command of the Seas'--either by destroying an opponent's forces through battle or, more frequently, by containing them in their ports through some form of...blockade--forms the essence of Mahan's whole conception of naval strategy, running like a thread through all of his teachings.³²

Mahan envisioned that the objective of naval warfare was to gain command of the sea by the destruction or neutralization of the enemy fleet. To Mahan, command of the seas meant two things: (1) having a superior navy capable of defeating every other navy in the world, and (2) through geography and location being able to dominate trade by controlling the sea lines of trade. This would also involve controlling overseas possessions for refueling bases as well as tradeposts.³³ Mahan used history to demonstrate that this sort of command of the seas resulted in England becoming a world power. He extrapolated his data to imply that the United States could also use its navy to become a world power.³⁴

With this in mind, backed by Mahan's theories, naval forces should concentrate on gaining and maintaining command of the sea. Following Mahanian concepts, the carrier battle group, which is today's capital ship, should not be used to provide tactical support for an Army unit ashore. To do so would be a misuse of

naval power and preclude Mahan's stated objective of naval warfare--command of the seas.

A contemporary of Mahan provided another view of sea power. Julian Corbett was a naval theorist who had studied Clausewitz, Jomini, and Mahan. Unlike Mahan, he saw a theory of war as a way to unify land and sea operations.³⁵ He felt that the main role for a maritime strategy was to determine how the Army and the Navy should interact with each other in a joint plan of war. Corbett recognized that there may be times when the need to gain command of the seas is so important that the Army would have to devote itself to helping the fleet; conversely, he also saw the possibility that the fleet may be required to support forces ashore before it could work on destroying the enemy's fleet.³⁶ Thus, Corbett recognized that at times land actions can directly influence command of the seas by gaining control of chokepoints or strategic ports. However, Corbett's main theory was that the primary objective of naval warfare must always be to directly or indirectly secure the command of the sea or to prevent the enemy from securing it.³⁷

Once command of the seas was gained, however, naval forces could turn their attention to the land battles.³⁸ Like Mahan, Corbett used historical examples to show the direct influence on land battles and campaigns that navies could wield. Unlike Mahan, Corbett used these examples to show that this was an important role for the Navy:

By winning command of the seas we remove the barrier from our own path, thereby placing ourselves in position to exert direct military pressure upon the national life of the enemy ashore.³⁹

Corbett used the British war against Napoleon as an example. British naval operations did not cease after the Battle of Trafalgar, which decimated the combined French and Spanish fleet and left Britain ruling the waves. There were subsequent British naval actions supporting troops ashore.⁴⁰ Once the command of the seas had been gained, the naval objective had been reached. Corbett had advocated that the real purpose of maritime strategy was to integrate land and sea warfare. Once command of the seas had been gained, then the Navy could and should concentrate on the land war.

Corbett and Mahan both saw the interdependence of land and sea warfare. To both, the command of the seas was of primary importance. Considering these theorists, it appears that the naval forces must first be used to gain control of the seas. Mahan would argue that the subsequent role of the navy would be to maintain this command of the seas. Corbett did not dispute the need to maintain control of the seas. However, he did see that once command of the seas was gained, naval forces could be used in subsequent missions to support the land battles.⁴¹ He advocated this use of naval forces, saying, in effect, that joint operations between the Army and the Navy were the purpose for war plans.

We discussed earlier in this section that technology had changed warfare in general and naval warfare in particular. The battleship has given way to the carrier as the modern capital ship. There are only two battleships left in the world, and their future is uncertain. Carriers are the major ships available for a fight. As we will see later, they are capable of taking that

fight to the enemy ashore. Adjusting Mahan's and Corbett's theories to include the aircraft carrier, we see that Mahan would probably balk at using it for tactical support ashore. Despite his recognition that navies had directly influenced land battles, he would probably prefer to use naval forces to influence land campaigns indirectly, through blockades, naval battles, and the control of enemy shipping. He would prefer to strangle the enemy through sea power, and would probably use the carrier battle group for that mission.

Julian Corbett saw the possibilities of naval support of the land battles once command of the sea had been gained. A carrier battle group would easily fall within his theories for directly affecting the land battle via a joint sea/land war plan. Corbett would advocate using the carrier battle group in this role. It would make sense within his theories to use the Navy's most powerful weapon in a tactical support role if the military plan called for naval support.

SECTION THREE HISTORICAL ANALYSIS

According to Clausewitz, a historical example may be used to show the application of an idea.⁴² Accepting this, we shall examine two historical examples of carrier battle groups providing tactical support to ground troops in contingency operations. Each operation will be examined with regard to the impact the carrier battle group had on the outcome of the ground battle, as well as the overall operation. To facilitate our

analysis we shall use the three criteria of FEASIBILITY, ACCEPTABILITY, and SUITABILITY to determine if the decision to use the carrier battle group in a tactical support role in these operations was correct.

The first operation that will be studied is the American invasion of Grenada, Operation URGENT FURY. In the final days of October 1983, U.S. military forces conducted an invasion of this Caribbean island in response to the instability of the Grenadan government, which just days earlier had suffered a bloody coup d'etat. The violence of the internal conflict not only threatened the lives of American students on the island, but also threatened the stability and peace of the region.⁴³

Like many contingency operations there was little time for planning. Forces of Army, Navy, Marines, and Air Force were hurriedly assembled under the command of VADM Joseph Metcalf, who had been designated the Joint Task Force Commander. Eventually, there would be both Army and Marine units on the island, with the USS INDEPENDENCE carrier battle group offshore to provide support.⁴⁴

The ACCEPTABILITY of using the INDEPENDENCE battle group in a tactical support role is a matter of conjecture. The facts are, however, that the prepared contingency plan (#2360) for an invasion of Grenada (though it was not used in the actual event) called for a carrier battle group in a support role.⁴⁵ The Unified Commander for the area (CINCLANT) is always a Navy officer; in this case, it was ADM Wesley L. McDonald.⁴⁶ The Joint Task Force Commander, VADM Metcalf, as the commander of the

2d Fleet, also had tactical control over all Navy forces in the Atlantic, including the carriers.⁴⁷ It appears that neither publicly voiced opposition to using the carrier battle group in this operation. Some analysts have alleged that Grenada was an opportunity for all the services to participate in a military action.⁴⁸ In this context, it is possible that the Navy saw using the carrier battle group in a tactical support role as a way of getting a "piece of the pie." Again, this is conjecture, but it does appear that the Navy supported using the INDEPENDENCE to provide tactical support ashore.

The carrier and its escorts were intended to provide air and naval gunfire support to the units ashore.⁴⁹ Ideally this should provide the firepower required to enable the ground units to maneuver effectively. As we will see in the next section, the carrier battle group can provide a considerable amount of firepower. However, the U.S. Army forces in Grenada did not maneuver rapidly or effectively.⁵⁰

One possible reason for this deficiency was the over-reliance of the Army units on the provided naval fire support. A few snipers held up entire battalions while Army units called for the carrier-based air support.⁵¹ However, the effectiveness of the air support itself was questionable. The lack of maps and poor targeting procedures hurt the quality of these actions. There were instances of air support, called in by an ANGLICO (Air Naval Gunfire Liaison Company), hitting U.S. positions.⁵² After watching this happen, one supported battalion commander even ordered the close air support to stop.

though the local population were British citizens. In April of 1982, the Argentinians conducted a military operation to take over the islands. After a brief fight, the smaller British forces capitulated. While the Argentinians celebrated their victory, the British prepared to take the islands back with military forces.⁵⁸

It was not going to be easy. The Falklands were thousands of miles away from England. Located in the South Atlantic, they were also far away from NATO and the areas where Britain normally operated. This would place the operation out of reach of most shore-based air power which Britain could provide.⁵⁹

The men going ashore believed that air superiority would be crucial to the success of the operation.⁶⁰ The Argentines possessed a capable air force and an old, but still capable, navy. The Falklands were within range of the land-based Argentinian aircraft, which included Mirages, Super Entendard, Dagger aircraft and land-based A-4 Skyhawks. These outnumbered the planes the British could bring.⁶¹

The Argentine Navy included a small aircraft carrier of its own which could carry eight A-4 Skyhawk attack aircraft. Ironically, this carrier was the former British HMS VENERABLE of World War II vintage. An old American cruiser, also from World War II, was the second largest ship in their navy. Now called the GENERAL BELGRANO, it was equipped with Exocet missiles. The rest of the navy consisted of destroyers, frigates and submarines.⁶² This is a typical navy for a less advanced country; it posed a serious threat to an attacking force.⁶³

The task force that sailed from England included two small aircraft carriers, HMS HERMES and HMS INVINCIBLE, each carrying VSTOL Harriers; Sea Harriers from the Royal Navy, and Harrier GR3s from the Royal Air Force.⁶⁴ The carriers were escorted by numerous surface ships for protection from surface, subsurface, and airborne threats. Initially, there were thirteen frigates and destroyers, which were later augmented by another nine. The task force also included six submarines as well as patrol craft and other smaller craft serving as ambulance ships.⁶⁵ The carriers and their escorts formed the British carrier battle group, which had some significant differences from American ones. The difference was mainly in the composition of the carrier air wing. The British carriers in this operation carried VSTOL Harriers and anti-submarine helicopters. American carrier air wings have a greater variety of aircraft, which will be discussed in more detail in Section IV.

Based on hindsight, these differences made the FEASIBILITY and SUITABILITY of using the carrier battle groups in a tactical support role questionable. Modern British carriers were designed for missions other than strike warfare, which is warfare using attack planes to hit enemy targets at sea or on shore.⁶⁶ Normally, they would be tasked to be anti-submarine task force group command ships, using helicopters to hunt and destroy enemy submarines. The HERMES had a second mission as a commando assault carrier to transport the Royal Marines ashore during an amphibious assault.⁶⁷ The decision to outfit these carriers with Harriers meant that they could not carry out their missions of ASW or

commando assault. The ASW helicopters left onboard would be pressed into service to deliver troops and supplies during the operation.

As it turned out, these battle groups were SUITABLE, although there were problems. The carriers and their escorts played a major role in enabling the ground forces to maneuver. According to the Honorable John Nott, British Secretary for Defence: "The infantry would not have been able to carry out their objectives without the support they received from artillery and naval bombardment."⁶⁸

The carriers performed better than expected, and proved to be FEASIBLE attack carriers. As part of the naval bombardment, Mr. Nott noted that on 1 May the HMS HERMES sent 12 Sea Harriers in ground attacks on Port Stanley and Goose Green. Shortly after their return to the carrier, these same aircraft were flying air defense patrols.⁶⁹ Despite the fact that they were not designed for this role, the British ably adapted their carriers to fight as attack carriers.

The Harriers themselves were not good air defense aircraft, but the British had no other aircraft available. They had thought that all of their future operations would be in the North Atlantic, protected by land-based aircraft.⁷⁰ Aircraft are the first line of defense in a carrier battle group against air attacks.⁷¹ Their ability to detect hostile aircraft at a distance gives the main body time to prepare for attacks. The Harriers with their small flight radius and short airborne time were not able to completely protect the force. The British relied

upon the surface ships for much of their air defense. They never did gain complete air superiority during the attack. Moreover, several British ships were sunk by air and missile attacks, while many more were damaged.⁷² When reviewing the FEASIBILITY and SUITABILITY of using these carrier battle groups in a tactical support role, however, it is important to note that despite their inability to gain complete air superiority, the operation was still a success.⁷³

The ACCEPTABILITY of using the carriers for this type of mission may be judged by the fact that the British saw this as primarily a naval expedition, specifically an amphibious operation. The detailed conduct of the operation was in the hands of the Royal Navy; presumably it was conducted in accordance with Royal Navy doctrine.⁷⁴ The equipping of the carriers with only VSTOL Harriers, despite a credible air and naval threat, shows that the Royal Navy fully intended to use them in the ground support role. The Harriers proved valuable for both ground support and air patrols.⁷⁵

The question of whether or not these carriers were SUITABLE for this mission is not purely academic. The last "real" British aircraft carrier, the HMS ARK ROYAL, was decommissioned in 1978.⁷⁶ It could carry a variety of aircraft such as fighters and early warning planes, as well as ASW and strike aircraft. The lack of these planes on the HERMES and the INVINCIBLE negatively affected the operation and contributed to the losses taken by the British ships.⁷⁷ A carrier such as the ARK ROYAL, designed for multiple missions, would have been more SUITABLE;

this demonstrates the need for properly identifying the carrier's potential missions during design and procurement.

The carrier battle group was important to the outcome of Operation CORPORATE. Unlike the American experience in Grenada, the British had to win command of the seas before the operation could proceed. They effectively countered the Argentine submarine threat. With the sinking of the GENERAL BELGRANO, they neutralized the Argentine Navy by demoralizing it so much that the rest of the ships, including its aircraft carrier, remained in port for the remainder of the conflict.⁷⁸ This neutralization of the Argentine Navy meant that the troop transports were relatively safe from naval attack. The air defense the carrier battle groups conducted was effective, though some missiles did get through. The British were lucky that the ships that were hit were not critical to the operation, although the loss of ships such as the ATLANTIC CONVEYOR hindered the operations ashore.⁷⁹

The Harriers also provided good ground support to the troops ashore. Altogether, the twenty-eight Royal Navy Sea Harriers flew over 1,100 combat air patrols (task force protection) and 90 offensive missions in support of ground troops, while the fourteen RAF Harrier GR3s flew over 125 ground attack and tactical reconnaissance sorties.⁸⁰

This brief history review shows that, at least in these two examples, carrier battle groups did provide essential support to ground forces ashore. Sometimes that support is more critical to success than at other times. Of course, other historical examples may show where a carrier battle group did not provide the required

support to the ground battle and was unable to positively affect the outcome.⁸¹ It is important to remember that these are only two examples, and they in no way prove that the carrier battle group should be used in a tactical support role. Each operation is different; even these two had different missions, threats, and forces available, making it difficult to draw definitive conclusions on whether carrier battle groups should be used in a tactical support role. However, one can conclude that in these cases the carrier battle group did make a positive impact on the battles ashore, and that such a mission should at least be considered in planning for future contingency operations.

SECTION FOUR AMERICAN BATTLE GROUPS: CAPABILITIES AND LIMITATIONS

A Nimitz class carrier has a more powerful and better balanced tactical air force than many national air forces.⁸²

Modern Naval Combat

The American carrier battle group is the strongest naval force in the world. Composed of an aircraft carrier, surface combatants and often direct support attack submarines, each battle group is capable of performing the full spectrum of offensive naval warfare.⁸³ These battle groups are often the first American force on the scene during a crisis and are a potent expression of American will and power.⁸⁴

The centerpiece of a carrier battle group is the aircraft carrier itself. Virtually a self-contained, floating airbase, the ship carries about 85 aircraft--a mixture of fighters, attack

planes, and various other types. Carriers are designed to conduct combat operations with these aircraft against airborne, surface, subsurface, and shore targets.⁸⁵

The embarked aircraft are the primary weapons system of the carrier. According to ADM James L. Holloway, former Chief of Naval Operations and former naval aviator:

Carrier aircraft have as their main mission shooting down hostile aircraft, sinking many surface ships, seeking out and destroying hostile submarines, delivering close air support to troops ashore, interdicting ground lines of communication, striking enemy installations at shore, patrolling ocean areas and the destruction of enemy shipping.⁸⁶

What ADM Holloway did not mention, in my opinion, is that these missions cannot be conducted simultaneously by one carrier. Multiple carriers could be assigned, but with a total of only fifteen carriers in the U.S. fleet, this would limit the availability of carriers to respond to other missions.

The carrier is designed primarily to fight forces at sea. The primary mission of combatting naval forces takes up most or all of the carrier's resources, leaving little for concurrent missions. However, the special strength of the carrier air wing is in its versatility. Unlike other ship armaments which are integral parts of the ship, a carrier air wing can be tailored to fit its mission. This can also be done when the carrier is deployed.⁸⁷

The volume of air as a carrier air wing can provide to the ground depends upon its composition. Consider the combat aircraft of a typical air wing:

F-14 TOMCAT	20
F/A-18 HORNET	20
A-6 INTRUDER	16 ⁸⁸

A typical weapons load for an A-6 INTRUDER could be twenty-eight 500 lb. bombs, or perhaps several 2,000 lb. bombs. A F/A-18 HORNET could carry laser-guided munitions, general purpose bombs and cluster bombs, along with its 20mm gun.⁸⁹ A strike mission of ten A-6 and ten F/A-18 planes could place thousands of pounds of explosives on enemy targets ashore, seriously disrupting enemy maneuver and communications. The planes could also be tasked to provide close air support. Navy fire support doctrine discusses this:

The characteristics of supporting air units permits the use of small flights of aircraft against individual targets or the concentration of large groups of aircraft against targets of great extent or importance. The variety of armament that the aircraft are capable of carrying permits flexibility of armament selection and renders nearly every type of enemy installation a potential target.⁹⁰

What the above points out is that not only can the carrier air wing itself be tailored to the mission by being assigned different types of aircraft, but an air wing can also tailor its own organic assets by varying the munitions load to meet any contingency, including providing tactical support to ground units. The drawback is that once the planes are loaded, it would take some time to change the weapons loadout if the mission were suddenly changed. This need not be a major problem, but it can affect the tempo of the operation.⁹¹

Each aircraft carrier is escorted by large, heavily armed surface ships, which provide protection to the carrier. These ships are also capable of conducting offensive operations against aircraft, surface, subsurface, and ashore targets.⁹² Normally consisting of five to ten ships, this escort screen of ships is a major part of the entire battle group.

Modern surface combatants are equipped with naval guns (5" or 76mm) and some also have Tomahawk surface-launched cruise missiles (SLCM). With these weapons, the surface escorts can provide fire support to forces ashore.⁹³ The trade-off is that when the ships are on the gunline providing naval gunfire support they cannot protect the carrier.

The 5" naval gun is the standard weapon for the majority of surface ship classes, and the one which can provide naval gunfire support to the shore. These guns have a high rate of fire, a variety of ammunition, and good accuracy. They are particularly well-suited for direct fire missions due to their high initial velocity and flat trajectory.⁹⁴ The range of the guns limits their effectiveness; the distance the ship must remain offshore for safe navigation and self-protection will necessarily limit the range to the shore targets. Also, the effect of naval gunnery will vary with the ammunition used. For example, six rounds of 5" shells will probably produce fewer than 10% casualties against standing troops, and less against protected troops.⁹⁵

During contingency operations the carrier battle group must be able to protect itself from enemy forces. A squadron of E2 Hawkeye early warning aircraft is in every carrier air wing.

These planes can provide extensive radar coverage of the operating area and give ample warning to the battle group of incoming raids. They are also capable of controlling air strikes onto targets both at sea and ashore, and can provide the battle group with good immediate tactical information.⁹⁶ Also inherent in every carrier battle group is its intelligence center, tied into Navy and national assets for sources of information. Staffed with Naval intelligence officers and enlisted personnel, they can gather, process, evaluate and disseminate critical information not only to the carrier group commander, but also to the ground commander.⁹⁷ The Falklands campaign illustrates the need for such self-protection. Former Secretary of the Navy James Webb wrote:

If one American aircraft carrier battle group had been operating with its sophisticated aircraft and weaponry, the Argentines would have been hard pressed even to come within range of the ships they sank and damaged.⁹⁸

This section has dealt briefly with the capabilities and limitations of a carrier battle group providing tactical support to ground units ashore during contingency operations. This facilitates answering the question of SUITABILITY of the decision to use the carrier battle group in this role. In the next section we will continue this analysis along with assessing the ACCEPTABILITY and FEASIBILITY of the decision.

SECTION FIVE ANALYSIS OF THE PROBLEM

Having discussed the theoretical and historical background for a carrier battle group providing tactical support ashore, as well as having established the capabilities and limitations of it in this role, we shall next proceed to determine whether the carrier battle group should be tasked to provide tactical support to an Army unit during contingency operations. We will do this by analyzing this course of action using the criteria of FEASIBILITY, ACCEPTABILITY, and SUITABILITY, as defined in the introduction of this paper.

FEASIBILITY. We have already reviewed the physical capabilities of the carrier battle group. Now we will continue looking at the FEASIBILITY of using the carrier battle group in a supporting role. Can the military objective during contingency operations be achieved with it? Inherent in this question is the assumption that the carrier battle group can even be used in contingency operations. Former Chief of Naval Operations ADM Holloway wrote:

The tactical air power provided by a carrier can be moved more than 600 miles a day to any place on the three-fourths of the earth's surface covered by the high seas, and without any need to secure permission of any other nation. About 85% of the land areas of the world covered by U.S. contingency plans, and 95% of the world's population, lie within range of carrier aircraft operating in international waters.⁹⁹

The ability to move a floating air base to all points of the globe, defend that air base from enemy threats, and project power ashore against land and sea targets is the hallmark of a

carrier battle group. They are readily available to respond to contingency operations or other crises because of their forward deployed posture and rapid mobility.¹⁰⁰ Naval forces in general, and carrier battle groups in particular, do not stay in their home ports waiting to be called for duty. There are carrier battle groups constantly deployed overseas in the Pacific, Atlantic, Mediterranean and other places where naval presence is desired. These deployments allow the carrier battle groups to be near any potential point of conflict and able to respond quickly.¹⁰¹ Because of their high optempo, they maintain a high state of readiness and expertise. Carrier battle groups are very self-sufficient and relatively easy to resupply on station. This gives them the opportunity to stay for weeks, even months, on station providing support. This expertise, optempo, and self-sufficiency ensure that the carrier battle group is ready for any crisis.¹⁰²

Consider the range of a hypothetical carrier battle group stationed in Washington, D.C. It could conduct strikes against Chicago, Indianapolis, St. Louis, and Atlanta, countering any threat in between.¹⁰³ Now put the carrier out to sea, protected by its mobility and almost undetectable in the vast ocean, and consider the impact that air strikes in support of ground troops could make on the land battle. The trade-off is in the time/distance relationship. The farther out to sea the battle group operates, the farther the planes must fly to their targets. The closer the planes are to land, the less mobility they have and the more easy they are to detect.

By virtue of its size and power, the carrier battle group cannot conduct covert missions which require stealth and secrecy.¹⁰⁴ Further, despite their staying power, carrier battle groups cannot stay on station indefinitely. Even nuclear powered carriers, which do not require refueling, must receive aviation fuel as well as resupplies of food and other logistics. Meanwhile, the non-nuclear powered escorts must be refueled every several days. Personnel problems increase the longer the ships stay out of home port. Maintenance problems that are put off while the ship is deployed must eventually be fixed; in some cases, repairs may require a shipyard and drydock. Putting off maintenance will only result in a less prepared force in the future.¹⁰⁵

Most of these problems stem from very long periods of on station time. Hopefully, there will be a chance to rotate carrier battle groups during the contingency operation before these problems arise. For the most part, the carrier battle groups are capable of achieving the military objective in a contingency operation.

During contingency operations the carrier battle group may be required to try to gain command of the sea and the air before providing support ashore, as we saw in the Falklands. Not all of our operations will be against forces like the ones faced in Grenada. Many countries have navies and air forces capable of disrupting operations, which must be considered when planning the operation. Missile technology is increasing and many countries have planes and boats which can fire missiles like the

Exocet.¹⁰⁶ Current American doctrine depends upon the carrier aircraft to defeat this threat by intercepting the launch platforms before the missiles are fired.¹⁰⁷ This is within the capability of the American carrier battle group. Command of the sea and air will be the first priority, as there will be no air support to the ground forces if the carrier is sunk or disabled.

Once control of the sea and air is established, the carrier battle group can provide a great deal of firepower support to the ground forces. As seen in Section IV, the carrier air wing can provide close air support to ground troops, as well as provide long-range interdiction of enemy ground forces. The surface escorts can provide naval gunfire support as well as surface-launched cruise missiles with either conventional or nuclear warheads. Together, the units of the carrier battle group can provide tactical support to the troops ashore. The weaknesses of the battle group can be overcome through rotating the forces before personnel and maintenance problems become insurmountable. The decision to use the carrier battle group in a tactical support role is **FEASIBLE**.

ACCEPTABILITY. Mahan once observed that if the function of the Navy was to assure positions ashore, then the Navy's actions would be subordinate to the Army's and the Navy would become an adjunct of the Army.¹⁰⁸ At the tactical level, this would probably be hard for most Navy officers to swallow. Hopefully, the current emphasis on joint operations will alleviate service jealousies.

To avoid subjective opinions on our course of action, we will determine the **ACCEPTABILITY** of using a carrier battle group

in a tactical support role by examining existing Navy and Joint doctrine. If the doctrine, as written, supports such a role, then it may be considered ACCEPTABLE. The first doctrine document we will examine is Naval Warfare Publication 1(A), Strategic Concepts of the U.S. Navy, dated May 1978. Despite its age, this is the most recent version. According to NWP 1 (A), the Navy's mission is as follows:

The mission of the U.S. Navy, as set forth in Title 10, U.S. Code, is to be prepared to conduct prompt and sustained operations at sea in support of U.S. national interests; in effect, to assure continued maritime superiority of the United States.¹⁰⁹

To support this mission the Navy has identified two basic functions: Sea Control and Power Projection. A third basic function, Strategic Sealift, was added in 1984.¹¹⁰ Since sealift is not a task for carrier battle groups, it will not be discussed further in this paper.

Navy doctrine considers sea control the fundamental function of the Navy. In this regard, sea control connotes control of the designated sea areas, on the sea, in the air and below the surface.¹¹¹ Sea control is considered synonymous with command of the seas, and the two terms are often used interchangeably.

Power projection, on the other hand, is a means of supporting land or air campaigns using capabilities designed for naval tasks. This function was developed in naval forces largely to help achieve or support sea control.¹¹² We have already seen that this idea in particular corresponds with some of Corbett's theories. Modern power projection covers a wide variety of naval

operations, of which the carrier battle group is only one means.¹¹³

While no priority of naval functions exists in NWP 1(A), it becomes apparent that sea control is considered more important than power projection. Calling sea control the fundamental function of the Navy indicates that the others are not considered as important. The Navy doctrine sees that the role of the Navy is to gain control of the seas to enable the Army and the Air Force to conduct sustained combat operations.¹¹⁴ Control of the seas is accomplished by keeping the sea lines of communication open and denying their use to the enemy. Power projection capabilities were developed to further sea control, not specifically to provide tactical support to ground troops.

During the Reagan administration, the Navy articulated its maritime strategy. This strategy set forth clearly how the Navy hierarchy saw its mission and functions. It did not deal solely with a possible war with the Soviet Union, though this was the major part of it. Crisis response (including contingency operations) was considered the "heart" of the dynamic maritime strategy.¹¹⁵ However, it did not specifically mention giving tactical support to Army units ashore in contingency operations, although it did discuss the Navy's power projection capabilities. Most of the strategy was, in fact, geared to gaining naval supremacy over the Soviet Union. In this regard, the aircraft carriers were considered the key to gaining and maintaining maritime superiority over the Soviet Union.¹¹⁶

Joint doctrine is another source to check the Navy's missions and functions. The key document is JCS Pub 2, Unified Action Armed Forces (UNAAF), dated December 1986. Unlike the older Navy document, JCS Pub 2 does specifically address the issue of providing tactical support to Army units ashore. Primary functions of the Navy include gaining control of the sea and conducting land, air, and space operations as may be required for the naval campaign.¹¹⁷

JCS Pub 2 also states that the Navy, together with the Marines, is tasked to provide naval close air support for joint amphibious operations. However, this still does not really address our question. It is not until we read the "collateral" functions of the Navy that we get an answer. Two collateral functions listed are (1) interdict enemy land, air power, and communications through operations at sea, and (2) conduct close air and naval support for land operations.¹¹⁸ Even here, the first one listed could be interpreted to mean conduct a naval campaign to support the land campaign, and not necessarily provide tactical support. So, hidden in the fine print of the joint doctrine, we finally find one collateral function of the Navy is to provide tactical support to land battles with air and naval gunnery. This is hardly overwhelming enthusiasm for placing the carrier battle group in such a role.

The joint doctrine does not really change the relative importance the Navy places on sea control over power projection. By specifically placing close air and naval gunfire support under collateral functions rather than primary functions, and by

publishing JCS Pub 2, the Joint Chiefs of Staff have approved this concept. Sea control is still the fundamental function of the Navy. Power projection is still for the purpose of achieving sea control. Providing tactical support to ground forces is low on the priority list of Navy missions. However, the fact that it appears at all in the joint document is a significant change from the 1978 version of Navy doctrine, and represents a shift, albeit a small one, in Navy thinking. It indicates that the decision to use the carrier battle group in a tactical support role could be ACCEPTABLE to the people who are tasked to equip, organize, and train the Navy for combat operations.

SUITABILITY. The final step in analyzing the decision to use the carrier battle group in a tactical support role is to determine its SUITABILITY. Are the carrier battle groups we have today right for the job of providing tactical support to ground forces? Can the mission be accomplished with the forces we have, or is there a better choice?

We established earlier that the Navy considered its fundamental function to be sea control and its primary opponent to be the Soviet fleet. Therefore, it follows that the design and capabilities of the carrier battle group, the premier naval weapon, would be guided by this perceived role. Any other role would be strictly secondary. NWP 1(A) even specifies that power projection is a means of providing support to land campaigns using capabilities designed for other tasks, namely war at sea.¹¹⁹

The coastal regions and adjacent ocean areas out to about 100 miles are called littoral zones. This is the area from which the carrier battle group can influence contingency operations ashore. The focus on the Soviet Union as the primary naval threat meant that littoral warfare took a back seat in development and procurement of naval forces.¹²⁰ This must change, as Senator John McCain (R-AZ) wrote in 1989:

The Navy needs to stop focusing so much of its efforts on the battle of the Atlantic and the battle of the Pacific, and start focusing more on the deployments, air support and strategic lift necessary to give the Marine Corps and our other power projection forces the sea power they need to deal with changing priorities and political conditions.¹²¹

The continuing existence of the Soviet Navy means that this threat cannot be ignored.¹²² However, the thawing of the Cold War indicates that a reevaluation of our forces to deal with any possible threat is required.

The ability of our navy forces to deal with littoral warfare has deteriorated.¹²³ One obvious example of this is the naval gun. Only two battleships with the 16" guns are left in service. During World War II, the faster battleships joined the carrier battle groups, while the older ones provided shore bombardment for amphibious operations. Today, shore bombardment will come from the carrier escorts' 5" guns, a relatively short range and ineffective ground support weapon.

The Navy has been emphasizing high tech equipment with its Aegis cruisers, new fighters, and missile systems. There has not been a corresponding emphasis on building a Navy to win in

littoral warfare.¹²⁴ High speed aircraft designed to attack ships at sea might have difficulty in supporting ground troops in rugged, hilly, forested terrain. Training can overcome the problems, but only if the Navy recognizes that a problem exists. If the Navy does not view tactical support for ground forces a high priority mission, then it will not train its forces for it, rendering them UNSUITABLE for the mission.

As for the SUITABILITY of the aircraft for the tactical support role, weapons analyst Norman Friedman wrote:

The land mission is different enough from the carrier mission that sacrifices and trade-offs entirely appropriate for one become unacceptable for the other.¹²⁵

There have been exceptions to this, but several examples indicate he is correct. Mr. Friedman discusses the attempt to make a naval version of the World War II Spitfire, which proved dangerous in carrier operations and possessed a limited range capability. There was also a naval version of the Air Force's F-111, which proved to be too heavy for carrier operations. However, he did point out that adapting carrier aircraft to land operations, as the U.S. Air Force did with the F-4, could succeed. This adds credence to the SUITABILITY of using carrier based aircraft for land operations by showing that carrier aircraft could be successfully used in land battles.¹²⁶

Even with the flexibility inherent in carrier air wings, there is difficulty in finding the proper mix and types of aircraft. Weighting the carrier air wing to provide land support may render it unusable for air defense or anti-submarine warfare,

and vice-versa. While the carrier air wing may be changed, even on deployment, this operation does not necessarily happen often or quickly. For the most part, carrier air wings are designed to give the maximum flexibility to the battle group, enabling it to combat just about any enemy in all environments.

Given the force structure of the Navy today, and if air support for a contingency operation is deemed necessary by the planners, then the carrier battle group is a likely source of that air power. If there is no land-based air support available, then there is currently no alternative to using the carrier battle group in a tactical support role. The U.S. Navy does not have small-deck carriers like the British used in the Falklands.¹²⁷ Even the large amphibious ships which can carry some VSTOL aircraft were really designed to use helicopters to ferry troops ashore, counting on the carrier battle group to provide the firepower.¹²⁸ The Navy has invested money and prestige in the modern large deck carrier, and counts on it to perform all the tasks assigned to the Navy, including ground support. Although it may have been a secondary consideration in its design, the American carrier battle group is SUITABLE for the task of providing tactical support to ground troops during contingency operations. However, its capabilities in this role are limited and could be improved.

SUMMARY. We have looked at the FEASIBILITY, ACCEPTABILITY, and SUITABILITY of using the carrier battle group to provide tactical support to ground forces during contingency operations. The capabilities of the battle group are such that it would be

SUITABLE to use it in this role. Its mixture of aircraft, ships and weaponry make it a versatile and potent weapon, ashore as well as at sea. Its versatility is enhanced by the ability to tailor the aircraft and ships of the battle group to meet specific missions. Naval and joint doctrine show that the decision to use the carrier battle group in a tactical support role could be ACCEPTABLE to the Department of the Navy, which is tasked to equip, train and organize naval forces. However, ACCEPTABILITY also implies more than mere words on paper. In order to become effective in this role, the Navy will have to increase the priority given to it, and structure and train its forces accordingly. As for its FEASIBILITY, there really is no alternative to using the carrier battle group in a tactical support role if air power is required and there is no land-based air available. So long as the land battle is within reach of either the carrier aircraft or the naval guns and cruise missiles of the escorts, the current carrier battle group can provide effective support ashore. Current force structure is a reality that contingency planners as well as Unified Commanders have to live with. Changes in the force structure will come only after the Navy accepts this role for itself.

SECTION SIX CONCLUSIONS

In the opening remarks of this paper, I used the terms ENDS, WAYS and MEANS. The focus of this paper was to determine if the carrier battle group (MEANS) should be used to provide

tactical support to Army units in contingency operations (WAYS).
The desired military objective (ENDS) was to defeat the enemy.

Naval theory indicates that this is a good mission for the carrier battle group, providing that the command of the seas has already been attained. Despite Mahan's strong beliefs that the object of naval warfare was to gain command of the seas, we have seen that his own historical analysis reveals several times where sea power had a direct impact on the outcome of the land battles. Using his historical research and ignoring his bias towards the decisive sea battle between fleets of ships, Mahan's works indicate that the carrier battle group can be used to impact upon the ground battle. This is supported by Corbett's theories, which advocated the mutual interdependence of land and sea warfare. While Corbett, too, saw the objective of naval warfare was to gain command of the seas, he understood the necessity and desirability of using naval forces to directly influence the land battle, once sea control was gained. He would probably support using the carrier battle group in this role.

Our historical examples show that the carrier battle groups can have a positive impact on the outcome of contingency operations. The Falklands campaign in particular is a good example of carrier battle groups in contingency operations. Conducted far away from home, the carriers provided the sole source of air power to the expedition. Combatting an enemy air force and navy, the carrier battle group successfully defeated and neutralized the opposition. This enabled the operation to

proceed, and the carrier battle group continued to provide tactical support to ground troops for the rest of the campaign.

We have also shown that a modern American carrier battle group has the ability to affect land battles and engagements. There are limitations in this role: the time/distance relationship between the distance the carrier must remain offshore to operate safely as opposed to the range to the targets and the time available for the aircraft to stay in position; the limited capabilities of the 5" naval gun to effectively conduct naval gunfire support; and the fact that the carrier battle group was designed primarily to fight a war at sea, not on land.

However, despite all that, the carrier battle group does have a good capability to affect the land battle. A strike mission of attack aircraft from the carrier can disrupt enemy maneuver. The naval gunfire from the surface ships can add to the firepower of all ground units within its range. The carrier battle group has the capability to defend itself in hostile areas in order to keep providing that ground support.

We then looked at the FEASIBILITY, ACCEPTABILITY, and SUITABILITY of using the carrier battle group to provide tactical support ashore. In all three areas the conclusion was affirmative. This is not to say that the carrier battle group choice is the perfect one; training and joint procedure problems remain. But the carrier battle group is a powerful military tool, able to extend the will of America across oceans and over the beaches. It should be used to provide tactical support for Army units ashore during contingency operations. The military

might of the battle group is too powerful and too expensive not to use it in this role, if required.

SECTION SEVEN IMPLICATIONS

Having concluded that the carrier battle group could and should be used for tactical support of ground forces in contingency operations, what does that imply for future operations? First of all, both Navy and Joint doctrine should be modified to increase the relative importance of naval support for ground operations. Doctrine is the written expression of the military's functions and missions. Continuing to consider this role as a "collateral" function will mean that it will not get the attention it requires when budgets are allocated and equipment is designed and procured.

Alternatives to the carrier battle group providing tactical support should be explored. It is an expensive weapon; perhaps there is a cheaper option. Outfitting the large amphibious ships with "ski jumps" to their flight decks could add to their VSTOL capabilities, allowing them to use Harriers in the ground support role much like the British did in the Falklands.¹²⁹ Granted that they may not be as capable as the real carrier battle group, these modified amphibious ships could be used in operations where there was a low threat of naval or air attack, such as in the Grenada operation.

Joint training must be emphasized between the Navy and the Army. Carrier battle groups should be integrated into Army

exercises in simulated contingency operations. Army forces not normally designated for contingency operations may find themselves suddenly participating in them. Prior training with carrier battle groups could result in successful operations. Joint training among the services could likely result in the procedures themselves evolving into one cohesive joint procedure that would alleviate the problems noted by ADM McDonald after URGENT FURY.

The current emphasis on joint operations and joint service training required by Congressional mandate (The Goldwater-Nichols Act of 1986) will, hopefully, result in leaders who are more familiar with the capabilities and limitations of other services. Carrier battle groups are potent weapons; however, if not used properly they will be wasted. Coordination and cooperation between the services will mean that situations such as in Grenada, where a battalion commander stopped the carrier-based air support because it was endangering his own troops, will not reoccur. In this context, familiarity brought by joint training will not breed contempt; rather, it will result in a more effective use of the carrier battle group's capabilities during contingency operations.

ENDNOTES

¹ S. G. Gorshkov, The Sea Power of the State, Malabar, FL: Robert E. Krieger Publishing Co., 1983, p. 222.

² A capital ship is a large warship, such as a battleship or aircraft carrier.

³ E. B. Potter, Ed., Sea Power: A Naval History, Annapolis, MD: Naval Institute Press, 1981, p. 289.

⁴ Wayne P. Hughes, CAPT, USN, Fleet Tactics: Theory and Practice, Annapolis, MD: Naval Institute Press, 1986, p. 288. CAPT Hughes defines a fleet as major forces used to gain, maintain, or dispute control of the seas. By this definition, neither amphibious forces nor ballistic-missile submarines constitute a fleet.

⁵ Kenneth J. Hagan, Ed., In Peace and War: Interpretations of American Naval History, 2d ed., Westport, CN: Greenwood Press, pp. 290-370.

⁶ Donald A. Garrish, CAPT, USN (RET), "Sea Based Air Power in the AirLand Campaign," Military Review, July 1989.

⁷ Department of the Navy, Naval Warfare Publication 1(A), Strategic Concepts of the U.S. Navy, May 1978, p. 1-3-1.

⁸ Tactical Training Group, Pacific has been specifically assigned by CINCPAC the mission to determine how the carriers are going to be used to provide shore support in contingency operations. Phone call between LCDR James and LCDR D. D. McDonald, TACTRAGRUPAC on 9 September 1990.

⁹ Gino Galuppini, Warships of the World, New York: Military Press, 1989, p. 127. Mr. Galuppini reports that in 1975 the USS NIMITZ cost \$683.9 million. Adding aircraft, equipment and weapons boosted the price by 30% to over \$1 billion. In an interview in the magazine Wings of Gold, Summer 1987, pp. S7-S15, ADM Holloway, a former Chief of Naval Operations reported that the FY 88/89 budget allocated \$3.3 billion for an aircraft carrier. According to the Combat Fleets of the World, Annapolis, MD: Naval Institute Press, 1988, p. 688, the total crew of the carrier and its embarked air wing is over 6,000 officers and enlisted, showing that the price of a carrier is high in manpower as well as dollars. These prices do not reflect the additional cost of the escorts or the logistics and training required to keep the carriers going.

¹⁰ Department of the Army, Field Manual 100-5, Operations, 5 May 1986, p. 10.

¹¹ Ibid., p. 169.

¹² Department of the Army, Field Manual 100-15, Corps Operations, p. 8-1.

¹³ David Kenney, CAPT, USN, "The Fascinating Falklands Campaign," Proceedings, U.S. Naval Institute, June 1983, p. 101.

¹⁴ The Joint Staff Officers Guide, AFSC Pub 1, p. 150, defines the tests for courses of action as follows: **SUITABILITY:** Will the course of action actually accomplish the mission when carried out successfully? In other words, is it aimed at the correct objectives? **FEASIBILITY:** Do we have the required resources, i.e. the personnel, the transportation, the resupply, the facilities, etc? Can the resources be made available in the time contemplated? **ACCEPTABILITY:** Even though the action will accomplish the mission and we have the necessary resources, is it worth the cost in terms of possible losses? Losses in time, material, and position are weighed in addition to purely military losses. For this paper, these definitions were slightly modified. **SUITABILITY** becomes the question of correct resources for the specified mission. **FEASIBILITY** asks the question is this mission doable. And **ACCEPTABILITY** is answered with regard to naval and joint doctrine.

¹⁵ Herbert Rosinski, The Development of Naval Thought: Essays by Herbert Rosinski, ed. by B. Mitchell Simpson, III, Newport, RI: Naval War College Press, 1977, p. vii. Rosinski was a military and naval scholar whose writings in the 1930s and 1940s helped to bridge the chasm between Corbett and Mahan and modern strategy. Simpson notes that Rosinski wrote his essays assuming knowledge of Mahan's and Corbett's theories on the part of the reader. Simpson felt compelled to explain Mahan and Corbett in this volume due to the lack of knowledge on the part of modern naval officers.

¹⁶ Ibid.

¹⁷ Carl von Clausewitz, On War, ed. and trans. by Michael Howard and Peter Paret, Princeton, NJ: Princeton University Press, 1976, p. 141.

¹⁸ Julian Corbett, Some Principles of Maritime Strategy, Annapolis, MD: Naval Institute Press, 1988, p. 8. Corbett was trained as a lawyer and worked as a novelist. He was also an accomplished historian, and wrote several books on the Royal Navy. He became active at the Royal Naval War College, where despite his acumen his works were suspect because he was a civilian. This is his principle work on naval theory, and though he is given no attribution, it is reflected in today's current American Maritime Strategy. See LtCol Douglas O. Hendricks, USMC, "U.S. Maritime Strategy in a Post-Cold War World?" Monograph for School of Advanced Military Studies, Ft. Leavenworth, KS: USAOGSC, 1990.

¹⁹ Ibid., p. 10.

²⁰ Michael Handel, "Clausewitz in the Age of Technology," in Clausewitz and Modern Strategy, London: Frank Cass and Company Ltd., 1986, pp. 54-59.

²¹ BGen J. D. Hittle, USMC (Ret), Intro to Jomini's Art of War, located in Roots in Strategy, Book 2, Harrisburg, PA: Stackpole Books, 1987, p. 423.

²² John Shy, "Jomini," in Makers of Modern Strategy: from Machiavelli to the Nuclear Age, Princeton, NJ: Princeton University Press, 1986, p. 179.

²³ Ibid., p. 182.

²⁴ Ibid.

²⁵ Philip A. Crowl, "Alfred Thayer Mahan: The Naval Historian," in Makers of Modern Strategy: from Machiavelli to the Nuclear Age, p. 457. The key works of Mahan were two volumes: The Influence of Sea Power upon History, 1660-1783 and The Influence of Sea Power upon the French Revolution and Empire, 1793-1812, which were based upon a series of lectures that Mahan gave at the Naval War College. A single edited version of these two books is listed in the bibliography. In that edition, the editor mentions in the introduction that the second volume contained one phrase that embodied everything that Mahan wanted to say and made him so popular in England: "Those far-distant storm-beaten ships upon which the Grand Army never looked, stood between it and the domination of the world." Mahan was read by political leaders such as Theodore Roosevelt and Kaiser Wilhelm, II, and was used to justify building great navies. There are flaws in Mahan's analysis of history which are beyond the scope of this paper, but his popularity in the late Nineteenth Century is undeniable.

²⁶ Rosinski, p. 26.

²⁷ Ibid.

²⁸ Ibid., p. 27.

²⁹ E. B. Potter, p. 162.

³⁰ Margaret Tuttle Sprout, "Mahan: Evangelist of Sea Power," in Makers of Modern Strategy: Military Thought from Machiavelli to Hitler, Edward Mead Earle, ed., Princeton, NJ: Princeton University Press, 1943, p. 438.

³¹ Ronald Spector, "The Triumph of Professional Ideology: The U.S. Navy in the 1890s," in Peace and War: Interpretations of American Naval History, 1775-1984, 2d ed., Kenneth J. Hagan, ed., Westport, CN: Greenwood Press, 1984, p. 182.

- ³² Rosinski, p. 24.
- ³³ Crowl, p. 451.
- ³⁴ Spector, p. 176.
- ³⁵ Rosinski, p. xi.
- ³⁶ Corbett, p. 16.
- ³⁷ Ibid., p. 91.
- ³⁸ Ibid., p. 16.
- ³⁹ Ibid., p. 94.
- ⁴⁰ Rosinski, p. xviii.
- ⁴¹ Ibid.
- ⁴² Clausewitz, p. 171.
- ⁴³ Mark Adkins, URGENT FURY: The Battle for Grenada, Lexington, MA: Lexington Books, 1989.
- ⁴⁴ Ibid., p. 363.
- ⁴⁵ Ibid., p. 131.
- ⁴⁶ Ibid., p. 125.
- ⁴⁷ Ibid., p. 127.
- ⁴⁸ Ibid., pp. 343-359. Mr. William Lind, the former defense advisor to Senator Gary Hart (D-CO), was highly critical of URGENT FURY. His allegations and the JCS response by General Vessey appear in Appendix A to Mark Adkin's book URGENT FURY.
- ⁴⁹ Ibid., p. 143.
- ⁵⁰ Richard Gabriel, Military Incompetence: Why the American Military Doesn't Win, New York: Hill and Wang, 1985, p. 171.
- ⁵¹ Billy Stephan, MAJ, USAF, during an interview conducted 9 November 1990. In 1983 then CPT Stephan was an ALO (Air Liaison Officer) with the 82d Airborne Division. He is a 1990 graduate of CGSOC, Ft. Leavenworth, and is currently an instructor there.
- ⁵² Ibid. ANGLICO is the acronym for Air Naval Gunfire Liaison Company, a force of Navy and Marines assigned to the Army units to coordinate naval fire support.

- 53 Adkins, p. 287.
- 54 Ibid., p. 337.
- 55 MAJ Stephan interview.
- 56 Adkins, p. 160.
- 57 Ibid., p. 362.
- 58 Max Hastings and Simon Jenkins, The Battle for the Falklands, New York: W. W. Norton and Co., 1982, p. 1-14.
- 59 Martin Middlebrook, OPERATION CORPORATE: The Falklands War, 1982, London: Penguin Books, 1985, p. 68.
- 60 Nick Vaux, MG, Royal Marines, Take That Hill, Washington: Brassey's Inc., 1986, p. 55.
- 61 Charles W. Koburger, Jr., Sea Power in the Falklands, New York: Praeger, 1983, pp. 165-166.
- 62 Ibid.
- 63 Ibid., p. 20.
- 64 Middlebrook, p. 395.
- 65 Ibid.
- 66 Hughes, p. 289. CAPT Hughes defines strike power as the material means of a force to reduce enemy forces.
- 67 Middlebrook, p. 71.
- 68 The Honorable John Mott, "The Falklands Campaign," Proceedings, U.S. Naval Institute, May 1983, pp. 118-139.
- 69 Ibid.
- 70 Middlebrook, p. 68.
- 71 ADM James L. Holloway, USN (RET), Interview in Wings of Gold, Summer 1987, pp. S7-S15.
- 72 Koburger, p. 61.
- 73 Ibid. Mr. Koburger writes, "From the early 1960s to the early 1980s...it was generally accepted that even in Third World force projection situations, naval air power had lost its net quantitative and qualitative edge. The same rule, it seemed, now applied everywhere: no surface fleet could any longer operate anywhere against superior sophisticated air power. The Falklands completely reversed that idea." This is a controversial idea

beyond the scope of this paper. It is still generally accepted that air superiority is required for successful operations.

⁷⁴ Middlebrook, p. 92.

⁷⁵ Koburger, p. 31.

⁷⁶ Middlebrook, p. 71.

⁷⁷ The Honorable James Webb, "The Aircraft Carrier: Centerpiece of Maritime Strategy," Wings of Gold, Summer 1987, pp. S2-S3.

⁷⁸ Middlebrook, p. 152.

⁷⁹ Koburger, p. 103. The ATLANTIC CONVEYOR was used as a support aircraft carrier, transporting Harriers, Chinook and Wessex helicopters, and other major logistic items. Her loss was a tremendous blow to the operation, and showed that during operations like this no one ship should be loaded with so many critical items.

⁸⁰ The Honorable John Mott, pp. 118-139.

⁸¹ Charles E. Myers, Jr., "Littoral Warfare: Back to the Future," Proceedings, U.S. Naval Institute, November 1990, pp. 48-55. In 1972, the North Vietnamese launched the Easter Offensive. A full-scale armored assault, it overran the southern defenses. Much of the assault took place within twenty miles of the coast. Steaming in the Tonkin Gulf were two aircraft carriers and five destroyers. Poor weather and rough terrain grounded the carrier's tactical aviation. The destroyers' 5" guns were unable to reach and effectively suppress the enemy artillery or destroy the armored columns.

⁸² David and Chris Miller, Modern Naval Combat, New York: Crescent Books, 1986, p. 130.

⁸³ NWP 1(A), p. 1-4-5. The three naval warfare areas are surface, subsurface and air. Naval tasks include anti-air, anti-submarine, anti-surface, strike, amphibious and mine warfare.

⁸⁴ Webb, p. S2.

⁸⁵ NWP 1(A), p. 1-4-1.

⁸⁶ Holloway interview, pp. S7-S15.

⁸⁷ Ibid. For example, four carriers were used to evacuate Saigon in 1975. Two carriers provided cover and support with their normal air wings. The other two exchanged their regular air wings for Air Force and Marine helicopters to use in the evacuation.

⁸⁸ John D. Morrocco, "Navy, Facing Shortfall, Offers Carrier Air Wing Alternatives," Aviation Week and Space Technology, November 19, 1990, p. 26. The composition of carrier air wings is changing, with several alternatives being reviewed by the Secretary of Defense. The one listed here is the current CAW for the USS THEODORE ROOSEVELT (CVN-71).

⁸⁹ John W.R. Taylor, ed., Jane's All the World's Aircraft, 1898-90, Surrey, England: Jane's Information Group Ltd., 1989, pp. 417-420, 452.

⁹⁰ Department of the Navy, NWP 22-2(B) Supporting Arms in Amphibious Operations, Washington, D.C., p. 4-2.

⁹¹ Gordon Prange, Donald M. Goldstein, Katherine V. Dillon, Miracle at Midway, New York: McGraw Hill Book Co., 1982, pp. 371-382. This did happen to the Japanese when they were attacking Midway in World War II. The decision to abruptly change their planes' mission from bombing Midway to attacking the American fleet required a weapons switch. The American attack planes caught the Japanese carriers in mid switch, resulting in a catastrophe for the Japanese fleet.

⁹² NWP 1(A), p. 1-4-4.

⁹³ NWP 22-2, p. 2-1. The max range of a 5"/54 naval gun is 21,887 meters.

⁹⁴ Ibid.

⁹⁵ Ibid., p. C-4.

⁹⁶ Jane's All the World's Aircraft, p. 416.

⁹⁷ F. Andy Messing, Jr., MAJ, USAR (Ret), "Aircraft Carrier Forces: Meeting Today's Threat of Low Intensity Warfare," Wings of Gold, Fall 1988, pp. 12-13.

⁹⁸ Webb, p. S3.

⁹⁹ ADM Holloway interview, pp. S7-S15.

¹⁰⁰ James Watkins, ADM, USN, "The Maritime Strategy," Supplement to Proceedings, U.S. Naval Institute, January 1986, p. 8. ADM Watkins was the CNO and one of the major architects of the maritime strategy.

¹⁰¹ Ibid.

¹⁰² ADM Holloway interview, pp. S7-S15.

¹⁰³ ADM Watkins, p. 8.

- 104 Holloway interview, p. S-7.
- 105 Ibid., p. S-13.
- 106 Jean L. Couhet and Bernard Prezelin, ed., Combat Fleets of the World, Annapolis, MD: Naval Institute Press, 1987.
- 107 ADM Holloway interview, pp. S7-S15.
- 108 Rosinski, p. xiii.
- 109 NWP 1(A), p. 1-3-1.
- 110 Department of the Navy, Naval Warfare Publication 80, Strategic Sealift Planning and Operations Doctrine of the U.S. Navy, Washington, D.C., May 1987.
- 111 NWP 1(A), p. 1-3-1.
- 112 Ibid.
- 113 Ibid., p. 1-3-2. Power projection forces besides a carrier battle group are fleet ballistic missile submarines and amphibious assault forces. Mine warfare is also a form of power projection.
- 114 Ibid., p. 1-3-1.
- 115 ADM Watkins, p. 8.
- 116 ADM Holloway interview, pp. S7-S15.
- 117 Joint Chiefs of Staff, JCS Pub 2, Unified Action Armed Forces (UNAAF), Washington, D.C., December 1987, p. 2-7.
- 118 Ibid., p. 2-10.
- 119 NWP 1(A), p. 1-3-2.
- 120 Myers, pp. 48-55.
- 121 Senator John McCain (R-AZ), "A Maritime Strategy for the 1990s," Sea Power, September 1989. Senator McCain was a former naval aviator, and was shot down over Vietnam.
- 122 Thomas A. Brooks, RADM, USN, "The Soviet Navy in 1989: A U.S. View," Proceedings, U.S. Naval Institute, May 1990, pp. 235-238.
- 123 Elmo Zumwalt, ADM, USN (RET), On Watch, New York: The New York Times Book Co., 1976. ADM Zumwalt was the CNO during the early 70s. He observed that during the Vietnam War the emphasis had been on littoral warfare to the detriment of the Navy's sea control function. He went into office with the goal of reversing

this trend. During his term he was successful in switching the emphasis from littoral war to sea control. He initiated the high tech concept to counter the Soviet fleet.

124 Myers, pp. 48-55.

125 Norman Friedman, "World Naval Development," Proceedings, U.S. Naval Institute, November 1990, p. 136.

126 Ibid. ADM Zumwalt also discusses the development of the naval F-111 in his book On Watch.

127 Combat Fleets of the World, pp. 697-705.

128 Ibid.

129 Art Nalls, MAJ, USMC, "Why Don't We Have Any Ski Jumps," Proceedings, U.S. Naval Institute, November 1990, pp. 79-81. Ski jumps are inclinations of the flight deck that add lift to the aircraft upon take-off. VSTOL aircraft (Vertical/Short Takeoff and Landing), such as the Harriers, can use these lifts in take-off so they would not have to use their fuel eating vertical lift capabilities. During the Falklands war, the British even added some to merchant ships, which were used to transport the Harriers to the war zone. If adding lifts would decrease fuel consumption, this could add to the flight radius of the Harrier, which was one of its noted weaknesses during the Falklands campaign.

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